



SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

Product	Resolva Bug Killer Concentrate
Usage	Home and garden insecticide
Manufacturer	Westland Horticulture Ltd 14 Granville Industrial Estate Granville Road Dungannon County Tyrone BT70 1NJ
Email	customerservice@WestlandHorticulture.com
Emergency Tel	01480 443789 (UK)

2. HAZARDS IDENTIFICATION


Classification of the Substance or Mixture According to Regulation (EC) No 1272/2008:

Aquatic Acute 1	H400	Very toxic to aquatic life
Aquatic Chr 1	H410	Very toxic to aquatic life with long lasting effects

Classification of the Substance or Mixture According to Directive 67/548/EEC or Directive 1999/45/EC:

N	Dangerous for the environment
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Label Elements According to Regulation (EC) No 1272/2008:

Hazard Pictograms	GHS09 – Environmentally damaging	
Signal Word	Warning	
Hazard Statements	H410	Very toxic to aquatic life with long lasting effects
Precautionary Statements		
P273		Avoid release to the environment
P391		Collect spillage
P501		Dispose of contents/container to an approved waste disposal plant

Supplemental Information

EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

Label Elements According to Directive 67/548/EEC or Directive 1999/45/EC:

Hazard Pictograms Dangerous for the environment



R- Phrases

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

S- Phrases

S2 Keep out of reach of children
 S13 Keep away from food, drink and animal feeding stuffs
 S20/21 When using do not eat, drink or smoke
 S23 Do not breathe spray
 S24 Avoid contact with skin
 S35 This material and its container must be disposed of in a safe way
 S57 Use appropriate container to avoid environmental contamination



Supplemental Information

To avoid risks to man and the environment, comply with the instructions for use

3. COMPOSITION/INFORMATION ON INGREDIENTS

Description Insecticide containing 0.75 g/l lambda cyhalothrin as a concentrate

Hazardous Ingredients

Ingredient	Identifiers	Concentration %W/W	Warning Symbols	Directive 67/548/EEC	Regulation (EC) No 1272/2008 (CLP)
Lambda cyhalothrin	EC: 415-130-7 CAS: 91465-08-6	0.075% W/W	 	T+; R21, R25, R26 N; R50/53	Acute Tox. 3; H301, H311 Acute Tox. 2; H330 Aquatic Acute 1; H400 Aquatic Chr. 1; H410

For the full text of the H Statements and R phrases mentioned in this section, see section 16.



4. FIRST AID MEASURES

General Advice: Have the product container, label or Material Safety Data Sheet with you when calling a poison control center or physician, or going for treatment.

Inhalation: Move person to fresh air.
If breathing is irregular or stopped, administer artificial respiration.
Keep patient warm and at rest.
Call a physician or Poison Control Centre immediately.

Skin Contact: Take off all contaminated clothing and shoes immediately.
Wash off immediately with plenty of water.
If skin irritation persists call a physician.
Wash contaminated clothing before re-use.

Eye Contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Remove contact lenses and continue flushing.
Immediate medical attention is required.

Ingestion: If swallowed seek medical advice immediately and show container or label.
Do NOT induce vomiting.

Most Important symptoms and effects, both acute and delayed:
Skin contact paresthesia effects (itching, tingling, burning or numbness) are transient, lasting up to 24 hours

Treatment (Medical Advice):
Treat symptomatically

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:
Extinguishing media – small fires: Use water spray, alcohol-resistant foam dry chemical or carbon dioxide
Extinguishing media – large fires: Alcohol resistant foam or Water spray

Extinguishing Media Which Must Not Be Used For Safety Reasons:
Do not use a solid water stream as it may scatter and spread fire.

Specific Hazards Arising From the Substance Or Mixture:
As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10).
Exposure to decomposition products may be a hazard to health

Special Protective Equipment for Fire Fighters:
Wear full protective clothing and self-contained breathing apparatus.

Further Information:
Do not allow run-off from fire fighting to enter drains or water courses.
Cool closed containers exposed to fire with water spray.



6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Refer to protective measures listed in sections 7 and 8.

Environmental Precautions:

Prevent further leakage or spillage if safe to do so.
Do not flush into surface water or sanitary sewer system.

Methods and Materials for Containment and Cleaning Up:

Contain Spillage, and then collect with non-combustible absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations

Additional Advice: If the product contaminates rivers and lakes or drains inform respective authorities.

7. HANDLING AND STORAGE

Handling:

- No special protective measures against fire required.
- Avoid contact with skin, eyes and clothing
- When using do not eat, drink or smoke
- Wash hands thoroughly after work

Storage:

- No special storage conditions required
- Keep containers closed tightly in a dry, cool and well-ventilated place.
- Keep out of the reach of children
- Keep away from food, drink and animal feed stuffs

Specific End Uses:

Use only as insecticide according to the instruction on the label

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters

Component(s)	Exposure Limit(s)	Type of exposure limit	Source
Lambda Cyhalothrin	0.04 mg/m ³ skin	8 h TWA	SYNGENTA

Exposure Controls

Engineering Measures: Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.
 The extent of these protection measures depends on the actual risks in use.
 If airborne mists or vapors are generated, use local exhaust ventilation controls.
 Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit.
 Where necessary, seek additional occupational hygiene advice.

Protective Measures: The use of technical measures should always have priority over the use of personal protective equipment
 When selecting personal protective equipment, seek appropriate professional advice
 Personal protective equipment should be certified to appropriate standards

Respiratory Protection: No personal respiratory protective equipment normally required.
 A particulate filter respirator may be necessary until effective technical measures are installed.

Hand Protection: Chemical resistant gloves should be used.
 Gloves should be certified to an appropriate standard
 Gloves should have a minimum breakthrough time that is appropriate to the duration of the exposure
 The breakthrough time of gloves varies according to the thickness, material and manufacturer
 Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough
 Suitable material: Nitrile rubber

Eye Protection: Eye protection is not usually required
 Follow any site specific eye protection policies

Skin and Body Protection: Assess the exposure and select chemical resistant clothing based on the potential for contact and permeation/penetration characteristics of the clothing material
 Wash with soap and water after removing protective clothing
 Decontaminate clothing before re-use, or use disposable equipment (suits, aprons, sleeves, boots, etc)
 Wear as appropriate: impervious protective suit



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colourless to brownish liquid
Odour: Sweetish

Other Properties:

	Value	Temperature
pH	3.5 - 5.5 % w/v	25°C
Density	1.00 g/ml	20°C
Auto-ignition temperature	> 650 °C	
Flash point	>100°C	
Surface tension	30.3 mN/m	20°C
Explosive properties	Not explosive	
Oxidizing properties	Not oxidizing	

10. STABILITY AND REACTIVITY

Hazardous Decomposition: Product stable under normal conditions of use and storage
Combustion or thermal decomposition will evolve toxic and irritant vapours

Hazardous Reactions: None known. Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

The toxicological data has been taken from products of similar composition

Acute Oral Toxicity: LD50 Median lethal dose female rat, >2,000 mg/kg

Acute Inhalation Toxicity: LC50 Median lethal concentration male and female rat, >6.60 mg/l, 4h

Acute Dermal Toxicity: LD50 Median lethal dose male and female rat, >5,000 mg/kg

Skin Irritation: Rabbit: Slightly Irritating
May cause temporary itching, tingling, burning or numbness of exposed skin called paresthesia

Serious Eye Irritation: Rabbit: Mildly Irritating

Respiratory or Skin Sensitization: Buehler test guinea pig: not a skin sensitizer in animal tests.

Long Term Toxicity: Lambda cyhalothrin did not show mutagenic, carcinogenic or reproductive toxicity effects in animal experiments.

STOT- repeated exposure: No adverse effect has been observed in chronic toxicity tests



12. ECOLOGICAL INFORMATION

Toxicity

- **Toxicity To Fish:** LC50 *Oncorhynchus mykiss* (rainbow trout), 2.0 mg/l, 96h
- **Toxicity To Aquatic Invertebrates:** EC50 *Daphnia magna* (water flea), 0.18 mg/l, 48h
- **Toxicity To Aquatic Plants:** Lambda cyhalothrin:
 - EbC50 *Pseudokirchneriella subcapitata* (green algae), >1 mg/l, 96 h
 - ErC50 *Pseudokirchneriella subcapitata* (green algae), >1 mg/l, 96 h

Persistence and Degradability

- **Biodegradability:** Lambda cyhalothrin is not biodegradable
- **Stability in Water:** Lambda cyhalothrin : Degradation half life: 7 d. Not persistent in water.
- **Stability in Soil:** Lambda cyhalothrin : Degradation half life: 56 d. Not persistent in soil.
- **Mobility in Soil:** Lambda cyhalothrin is immobile in soil

Bioaccumulative Potential: Lambda cyhalothrin bioaccumulates

Results of PBT and vPvB assessment: Lambda cyhalothrin is not identified as PBT nor vPvB substance

Other Information: Classification of the product is based on the summation of the concentrations of classified components

13. DISPOSAL CONSIDERATIONS

Product: Do not contaminate ponds, waterways or ditches with chemical or used container.
Do not dispose of waste into sewer.
Where possible recycling is preferred to disposal or incineration.
If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated Packaging: Empty remaining contents.
Triple rinse containers. The rinse water should be added to the final spray solution. It must not be put down the drain, sink or toilet
Completely empty containers can be put in the bin or disposed of in compliance with applicable local regulations.
Do not reuse empty containers.



14. TRANSPORT INFORMATION

Land Transport (ADR /RID)

UN Number: UN 3082
UN Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LAMBDA-CYHALOTHRIN)
Transport hazard class: 9
Packing group: III
Labels: 9
Environmental hazards: Environmentally hazardous

Sea Transport (IMDG)

UN Number: UN 3082
UN Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LAMBDA-CYHALOTHRIN)
Transport hazard class: 9
Packing group: III
Labels: 9
Environmental hazards: Marine pollutant

Air Transport (IATA-DGR)

UN Number: UN 3082
UN Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LAMBDA-CYHALOTHRIN)
Transport hazard class: 9
Packing group: III
Labels: 9

Special precautions for user: None

15. REGULATORY INFORMATION

Registration Numbers: MAPP 16220
PCS 04076

Safety, health and environmental regulations/legislation specific for the substance of mixture:

This mixture is classified and labelled according to the CLP Regulation (EC) No 1272/2008

Contains: Lambda Cyhalothrin

Chemical Safety Assessment: A Chemical Safety Assessment is not required for this mixture

16. OTHER INFORMATION

Recommended uses and restrictions: Follow the instructions

Full texts of abbreviated H Statements referred to under Section 3:

H301	Toxic if swallowed
H311	Toxic in contact with skin
H330	Fatal if inhaled
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Full text of R Phrases referred to under Section 3:

R21	Harmful in contact with skin
R25	Toxic if swallowed
R26	Very toxic by inhalation
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Full text of Classifications

- CLP/GHS:** Acute Tox 2; Acute Toxicity, Category 2
 Acute Tox 3; Acute Toxicity, Category 3
 Aquatic Acute 1; Aquatic Acute Toxicity, Category 1
 Aquatic Chr 1; Aquatic Chronic Toxicity, Category 1
- DSD/DPD:** N; Dangerous for the environment
 T+; Very Toxic

Abbreviations and Acronyms

ADR	International Carriage of Dangerous Goods by Road
CAS No	Chemicals Abstract Service Registry Number
Directive 67/548/EEC	Dangerous Substances Directive (DSD)
EC No	European Community Number for chemicals within EU regulations
IATA-DGR	Dangerous Goods Regulations by the International Air Transport Association
IMDG Code	International Maritime Dangerous Goods Code
MAPP	Ministerially Approved Pesticide Product
PCS	Pesticide Control Service
PBT	Persistent, Bioaccumulative and Toxic Properties
Regulation (EC) No 1272/2008	Classification, Labelling and Packaging (CLP)
RID	International Transport of Dangerous Goods by Rail
vPvB	Very Persistent and Very Bioaccumulative Properties



Further information

Before using this product, ensure that you read and understand its label

MSDS information:

This Safety Data Sheet is prepared in compliance with Directive 1999/45/EC, 1272/2008 and Annex I of the REACH regulation 453/2010.

This safety data sheet provides health and safety information. This product is to be used in applications with best use practice. Individuals handling this product should be informed under COSHH of the recommended safety precautions and should have access to this information. The product information in this data sheet is to the best of our knowledge correct as at the date of publication. Westland Horticulture Limited does not accept responsibility for damage caused by incorrect use of this information.

Training and related advice:

This document contains important information to ensure the safe storage, handling and use of this product. It is the responsibility of your organisation to ensure that the information contained in this document is communicated to the end user and that all necessary training to enable the product to be used correctly has been given.

For further information please contact Westland Horticulture Ltd, 14 Granville Industrial Estate, Granville Road, Dungannon, County Tyrone, BT70 1NJ.